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(54)

apparatus and a method for reducing red-eye in an image

(57)

A red-eye reduction system (10) includes a masking module (16) which converts an image (11) into a mask having first state areas representing red colour pixels of the image and second state areas representing other colour pixels of the image. The image (11) includes an eye with a red pupil. A pupil locating module (17) is coupled to the masking module (16) to locate a substantially first state area in the mask that resembles a pupil.

A colour replacing module (18) is then coupled to the pupil locating module (17) to change the red colour pixels in the area into monochrome (grey) or other predefined colours. The colour replacing module (18) also adjusts the boundary of the area by changing the colours of pixels in close proximity to the area if the colour of these pixels is determined to be sufficiently close to red such that natural appearance of the eye is maintained when reducing the red pupil.

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graph LR
    11[IMAGE] --> 15[USER INTERFACE]
    15 -- "A={a_ij}" --> 16[MASKING MODULE]
    16 -- "B={b_ij}" --> 17[PUPIL LOCATING MODULE]
    17 -- "P={p_ij}" --> 18[COLOR REPLACING MODULE]
    18 -- "C={c_ij}" --> 15
  
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Figure 1

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# EUROPEAN SEARCH REPORT

Application Number  
EP 98 30 8506

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			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
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The present search report has been drawn up for all claims			
Place of search <b>THE HAGUE</b>		Date of completion of the search <b>26 April 2000</b>	Examiner <b>Chateau, J-P</b>
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons &amp; : member of the same patent family, corresponding document</p>			

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**ANNEX TO THE EUROPEAN SEARCH REPORT  
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